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Run on: January 7, 2002, 15:40:13 ; search time 154.28 Seconds	(without alignments)									
Scoring table: BLOSUM62	23.046 Million cell updates/sec									
Title: US-08-569-749-9										
Searched: 522463 seqs, 7407320 residues										
Perfect score: 295	1 PBLASAGFYYVGRNDVKC.....CWESGGDDPWHEAKNFRPRCE 48									
Sequence: AAWI3546										
Scoring table: Gapop 10.0 , Gapext 0.5										
Maximum DB seq length: 200000000										
Post-processing: Minimum Match 0%										
Maximum Match 100%										
Listing first 45 summaries										
Database : A_Genesed_1101:*										
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12: /SIDS2/gcdata/geneseq/geneseq/AAI1992.DAT:*										
13: /SIDS2/gcdata/geneseq/geneseq/AAI1993.DAT:*										
14: /SIDS2/gcdata/geneseq/geneseq/AAI1994.DAT:*										
15: /SIDS2/gcdata/geneseq/geneseq/AAI1995.DAT:*										
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17: /SIDS2/gcdata/geneseq/geneseq/AAI1997.DAT:*										
18: /SIDS2/gcdata/geneseq/geneseq/AAI1998.DAT:*										
19: /SIDS2/gcdata/geneseq/geneseq/AAI1999.DAT:*										
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21: /SIDS2/gcdata/geneseq/geneseq/AAI2001.DAT:*										
22: /SIDS2/gcdata/geneseq/geneseq/AAI2002.DAT:*										
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.										
SUMMARIES										
Result No. Score Query Match Length DB ID	RESULT 1									
1 295 100.0 48 18 AAWI3551	AAW13551 standard; Protein; 48 AA.									
2 295 100.0 438 17 AAW0583	AC AAW13551;									
3 295 100.0 618 18 AAWI9746	XX DT 22-JUL-1997 (first entry)									
4 295 100.0 618 18 AAWI3545	XX DE Human c-IAP1 repeat 3.									
5 295 100.0 618 20 AAWI3598	XX KW IAP; inhibitor; apoptosis; RING finger domain; restinosis; myocardial infarction; nephritis; HIV.									
6 283 95.9 618 19 AAWI9583	XX KW Human apoptosis in Human c-IAP2 proto									
7 283 95.9 618 19 AAWI9296	XX PT Human c-IAP2 repeat									
8 282 95.6 604 18 AAWI3552	XX PT Human inhibitor of Human apoptosis in									
9 282 95.6 604 18 AAWI9747	XX PT Human apoptosis in Human c-IAP2. Hom									
10 282 95.6 604 18 AAWI9582	XX PT Human apoptosis and for pharmacological screening									
11 282 95.6 604 18 AAWI3546	XX									
ALIGNMENTS										
RESULT 1	XX									
ID AAW13551	XX									
AC AAW13551;	XX									
DT 22-JUL-1997	(first entry)									
DE Human c-IAP1 repeat 3.	XX									
KW IAP; inhibitor; apoptosis; RING finger domain; restinosis; myocardial infarction; nephritis; HIV.	XX									
OS Homo sapiens.	XX									
PN W99706182-A1.	XX									
PD 20-FEB-1997.	XX									
PF 06-AUG-1996;	96WO-US12860.									
PR 08-AUG-1995;	95US-056749.									
PR (TULA-) TULARIK INC.	XX									
PI Goeddel DV, Rotthe M;	XX									
PR WPI: 1997-154209/14.	XX									
PT Nucleic acids encoding cellular inhibitor of apoptosis proteins - useful for apoptosis regulation in cells to reduce or increase apoptosis and for pharmacological screening	XX									
PT Human HIAP-1 proto	12 282 95.6 604 19 AAW69295									
PT Human cellular inh	13 282 95.6 604 20 AAW52703									
PT Human c-IAP. Mus	14 282 95.6 612 18 AAW13555									
PT Murine HIAP-2 prot	15 282 95.6 612 19 AAW69299									
PT Human AP12-MT chl	16 282 95.6 612 19 AAW50694									
PT Mouse apoptosis in	17 276 93.6 591 18 AAW19586									
PT Murine HIAP-1 prot	18 268 90.8 600 19 AAW69298									
PT Mouse apoptosis in	19 258 87.5 602 18 AAW13585									
PT Human protein sequ	20 250 87.5 602 18 AAW25287									
PT Amino acid sequenc	21 195 66.1 298 21 AAY84907									
PT A human proliferat	22 195 66.1 298 21 AAY69187									
PT Human inhibitor of	23 195 66.1 298 21 AAR68217									
PT Neuronal apoptosis	24 195 66.1 298 21 AAY14079									
PT Human apoptosis in	25 195 66.1 298 21 AAY09539									
PT Human NAIP protein	26 195 66.1 298 21 AAY88053									
PT Mouse inhibitor of	27 195 66.1 298 21 AAW17495									
PT Human apoptosis in	28 195 66.1 298 21 AAW69294									
PT Human X-linked inh	29 195 66.1 298 21 AAY99815									
PT Human XIAP protein	30 195 66.1 298 21 AAY59451									
PT Human TTRP (an inh	31 195 66.1 298 21 AAY81404									
PT Human TAP-like pro	32 195 66.1 298 21 AAE0366									
PT Chimpanzee TAP-like	33 195 66.1 298 21 AAB01670									
PT Gorilla TAP-like p	34 195 66.1 298 21 AAB01671									
PT Drosophila mutant	35 195 66.1 298 21 AAB01672									
PT Drosophila wild-type	36 195 66.1 298 21 AAB01673									
PT Drosophila mutant	37 195 66.1 298 21 AAB01674									

PS Claim 3; Page 25; 35pp; English.

XX

CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -

CC

CC repeats and/or a RING finger domain; in particular, at least two of

CC

CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat

CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)

CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus

CC sequences derived from these human genes.

CC

CC The nucleic acid is used for recombinant prodn. of human cellular

CC inhibitor of apoptosis protein which modulates apoptosis

CC regulation. The nucleic acids are useful in therapies where

CC increased cell-specific apoptosis is desired, e.g. in retinosis,

CC inflammatory disease states, myocardial infarction, glomerular

CC nephritis, transplant rejection and infectious diseases, e.g. HIV.

CC They can also be used in conditions requiring a reduction in

CC apoptosis.

XX

Sequence 438 AA;

SO

Sequence 48 AA;

PS

Query Match 100.0%; Score 295; DB 18; Length 48;

XX

Best Local Similarity 100.0%; Pred. No. 3.7e-29;

XX

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

XX

DB 107 pedlasagfyyvgrndavkcfccggg1rcwesggdpwvhawkfprce 48

XX

RESULT 2

AAW04583

AAW04583 standard; Protein; 438 AA.

XX

AC AAW04583;

XX

AC 07-FEB-1997 (first entry)

XX

DE Human inhibitor of apoptosis gene 1.

XX

DE Inhibitor of apoptosis 1; HIAP-1; degenerative disease;

XX

DE rheumatoid arthritis; septic shock; antiviral; trauma; stroke;

XX

DE cell death; oncogenes; cancer; diagnosis; therapy.

XX

OS Homo sapiens.

XX

PN W09635703-A1.

XX

PD 14-NOV-1996.

XX

PP 11-MAY-1995; 95WO-US05922.

XX

PP 11-MAY-1995; 95WO-US05922.

XX

PA (HUMA-) HUMAN GENOME SCI INC.

XX

PI He WM, Hudson PL, Rosen CA;

XX

WPI: 1996-518608/51.

XX

DR N-PSDB; AAT43709.

XX

PT Polynucleotide encoding human inhibitor of apoptosis gene 1 - useful

XX

PT for treating degenerative diseases, as antiviral defence mechanism

XX

PT and preventing cell death during trauma and strokes

XX

PT Claim 1; Page 40-41; 53pp; English.

XX

PT Human inhibitor of apoptosis 1 (hIAP-1) (AAW04583) is a protein

CC useful for treating degenerative diseases, rheumatoid arthritis,

CC septic shock, as an antiviral defence mechanism, and for

CC preventing cell death during strokes or trauma. Its amino acid

CC sequence was deduced from a cDNA clone (see also AAT7211) isolated

CC from a human foetal liver cDNA library using primers based on

CC human EST sequences that resembled the BIR repeats of Orygia

CC pseudosugita polyendrosis virus IAP. IAP homologues (see also

CC AAW19745 and AAW19747-52) and their derivatives and chemical analogues

CC can be used in methods for modulating apoptosis in animal cells,

CC specifically for treatment, by inhibition, of degenerative and

CC infectious disease or, by promotion, of cancer and autoimmune

CC lines. Recombinant hIAP-1 can be produced in prokaryotic or
CC eukaryotic host cells, or expressed in vivo. It can also be used
CC to screen for modulators of hIAP-1 activity.

CC Sequence 438 AA;

SO

Sequence 48 AA;

PS

Query Match 100.0%; Score 295; DB 17; Length 438;

XX

Best Local Similarity 100.0%; Pred. No. 3.7e-28;

XX

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

XX

DB 107 pedlasagfyyvgrndavkcfccggg1rcwesggdpwvhawkfprce 154

XX

RESULT 3

AAW19746

AAW19746 standard; Protein; 618 AA.

XX

AC AAW19746;

XX

DT 16-SEP-1997 (first entry)

XX

DE Human inhibitor of apoptosis protein homologue MIHB.

XX

DE Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MIHB;

XX

DE degenerative disease; infectious disease; autoimmune disease; MIHB;

XX

DE cancer; therapy; diagnosis.

XX

OS Homo sapiens.

XX

FT Key

XX

FT Region 46..113

XX

FT Region /label=BIR 184..250

XX

FT Region /label=BIR 269..337

XX

FT Region /label=BIR 569..606

XX

FT Region /label=RING_Finger

XX

PA W09723501-A1.

XX

PD 03-JUL-1997.

XX

PP 20-DEC-1996; 96WO-NU00827.

XX

PR 22-DEC-1995; 95AU-0007275.

XX

PA (AMRA-) AMRAD OPERATIONS PTY LTD.

XX

PT Vaux DL;

XX

DR WPI: 1997-350956/32.

XX

DR N-PSDB; AAT72711.

XX

PT Isolated protein homologues of viral inhibitors of apoptosis - used

PT to modulate apoptosis for treatment of degenerative, infectious or

PT autoimmune diseases and cancer

XX

PS Claim 8; Page 51-54; 13pp; English.

XX

CC Mammalian IAP homologue B (MTHB) (AAW19746) is a human homologue of

CC baculovirus inhibitor of apoptosis protein (IAP). Its amino acid

CC sequence was deduced from a cDNA clone (see also AAT7211) isolated

CC from a human foetal liver cDNA library using primers based on

CC human EST sequences that resembled the BIR repeats of Orygia

CC pseudosugita polyendrosis virus IAP. IAP homologues (see also

CC AAW19745 and AAW19747-52) and their derivatives and chemical analogues

CC can be used in methods for modulating apoptosis in animal cells,

CC specifically for treatment, by inhibition, of degenerative and

CC infectious disease or, by promotion, of cancer and autoimmune

CC disease.
 XX
 Sequence 618 AA;
 SQ

Query Match 100.0%; Score 295; DB 18; Length 618;
 Best Local Similarity 100.0%; Pred. No. 5; Je-28;
 Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PEOLASAGFYVGRNDVKFCFCGGLRCWESGDDPWEHAKWPRCE 48
 Db 287 peqlasagfyygrndvkfcfcddgglrcwesgddpwehakwprce 334

RESULT 4
 AAW13545 100.0%; Score 295; DB 18; Length 618;
 ID AAW13545 standard; Protein: 618 AA.
 XX
 AAW13545;
 XX
 XX 22-JUL-1997 (first entry)
 DE Human c-IAP1.
 XX
 KW IAP; Inhibitor; apoptosis; RING finger domain; restinosis;
 KW myocardial infarction; nephritis; HIV.
 XX
 OS Homo sapiens.
 XX
 PN WO9706182-11.
 XX
 PD 20-FEB-1997.
 XX
 PF 06-AUG-1996; 96WO-US12860.
 XX
 PR 08-DEC-1995; 95US-056949.
 PR (TULA-) TULARIK INC.
 XX
 PT Goeddel DV, Rothe M;
 XX
 DR WPI: 1997-154209/14.
 DR N-PSDB; AAW1590.
 XX
 Nucleic acids encoding cellular inhibitor of apoptosis proteins -
 PT useful for apoptosis regulation in cells to reduce or increase
 PT apoptosis and for pharmacological screening
 XX
 Disclosure: Page 18-20; 35pp; English.
 XX
 The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
 CC AAW61590/AAW61591) comprise a series of defined structural domain
 CC repeats and/or a RING finger domain; in particular, at least two of
 CC a first domain repeat (AAW13545 or AAW13546), a second domain repeat
 (AAW1349 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
 CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
 CC sequences derived from these human genes.
 CC The nucleic acid is used for recombinant prodn. of human cellular
 CC inhibitor of apoptosis protein which modulates apoptosis
 CC regulation. The nucleic acids are useful in therapies where
 CC increased cell-specific apoptosis is desired, e.g. in restinosis,
 CC inflammatory disease states, myocardial infarction, glomerular
 CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
 CC They can also be used in conditions requiring a reduction in
 CC apoptosis.
 XX
 Sequence 618 AA;

Query Match 100.0%; Score 295; DB 20; Length 618;
 Best Local Similarity 100.0%; Pred. No. 5; Je-28;
 Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PEOLASAGFYVGRNDVKFCFCGGLRCWESGDDPWEHAKWPRCE 48
 Db 287 peqlasagfyygrndvkfcfcddgglrcwesgddpwehakwprce 334

RESULT 5
 OY 1 PEOLASAGFYVGRNDVKFCFCGGLRCWESGDDPWEHAKWPRCE 48
 XX
 ID AAW3398 standard; Protein: 618 AA.
 XX
 AAY3398;
 AC AAY3398;
 XX
 DT 26-NOV-1999 (first entry)
 DE Human cellular inhibitor of apoptosis-1 sequence.
 XX
 KW Cellular Inhibitor of Apoptosis-1; antisense; diagnostic; therapeutic;
 C-IAP-1; prophylaxis; injection; inflammation; tumor formation.
 XX
 OS Homo sapiens.
 XX
 PN US595872-A.
 XX
 PD 28-SEP-1999.
 XX
 PF 03-DEC-1998; 98US-0205204.
 XX
 PR 03-DEC-1998; 98US-0205204.
 XX
 PA (ISIS-) ISIS PHARM INC.
 XX
 PI Bennett CF, Consort LM, Ackermann EJ;
 XX
 DR WPI: 1999-561047/47.
 DR N-PSDB; AAZ22143.
 XX
 PT Antisense compounds complementary to Cellular Inhibitor of Apoptosis-1
 PT useful for e.g. diagnostics, therapeutics, and as research reagents.
 XX
 PS Example 13; Columns 41-46; 32pp; English.
 XX
 CC The invention provides antisense compounds of 8-30 nucleotides that
 CC inhibit the expression of human Cellular Inhibitor of Apoptosis-1
 CC (c-IAP-1). The antisense compounds may be used for diagnostics,
 CC therapeutics (for modulating the expression of c-IAP-1), prophylaxis
 CC (e.g. to prevent or delay infection, inflammation, or tumor formation),
 CC as research reagents (e.g. to distinguish between members of a biological
 CC pathway) and in kits. The present sequence represents the human cellular
 CC inhibitor of apoptosis-1.
 XX
 Sequence 618 AA;

Query Match 100.0%; Score 295; DB 20; Length 618;
 Best Local Similarity 100.0%; Pred. No. 5; Je-28;
 Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PEOLASAGFYVGRNDVKFCFCGGLRCWESGDDPWEHAKWPRCE 48
 Db 287 peqlasagfyygrndvkfcfcddgglrcwesgddpwehakwprce 334

RESULT 6
 OY 1 PEOLASAGFYVGRNDVKFCFCGGLRCWESGDDPWEHAKWPRCE 48
 XX
 ID AAW19583 standard; Protein: 618 AA.
 XX
 AAW19583;
 AC AAW19583;
 XX
 DT 02-SEP-1997 (first entry)
 DE Human apoptosis inhibitor HIAP-2.
 KW Apoptosis inhibitor; HIAP-2; HIV; AIDS; neurodegeneration;

XX	KW	myelodysplastic syndrome; ischaemia; myocardial infarction; stroke; reperfusion injury; toxin-induced liver disease; gene therapy;
XX	KW	diagnosis.
OS	OS	Homo sapiens.
XX	XX	
FH	Location/Qualifiers	
KEY		
Domain	46..113	
FT	/label= BIR-1	
Domain	184..250	
FT	/label= BIR-2	
Domain	269..336	
FT	/label= BIR-3	
Domain	560..605	
FT	/label= Ring_zinc_finger	
XX	XX	
PN	W09706255-A2.	
XX	PD	20-FEB-1997.
XX	PD	05-AUG-1996; 96W0-IB01022.
XX	PF	22-DEC-1995; 95US-0516956.
XX	PR	04-AUG-1995; 95US-0511485.
XX	PA	(UY07-) UNIV OTTAWA.
XX	PS	
PI	Baird S, Korneluk RG, Liston P, Mackenzie AE;	
XX	PI	Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
DR	N-PSB; AAT70838.	
XX	XX	
PT	Nucleic acid encoding an inhibitor of apoptosis polypeptide - used to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection of susceptibility to apoptotic disease	
PT	Claim 27: Page 75-77; 219pp; English.	
CC	Human XIAP, HIRP-1 and HIRP-2 and murine M-XIAP, M-HIRP-1 and M-HIRP-2 (AAW19581-86) are a new class of mammalian proteins that are inhibitors of apoptosis (IAP) and which are characterised by the presence of a ring zinc finger domain (see also AAW19587) and at least one BIR (baculovirus IAP repeat) domain (see also AAW19588 and AAT70838), from a human liver library. IAP polypeptides can be expressed in host cells (in vitro or in vivo) and used in methods for treating diseases and disorders involving apoptosis, esp. in a human diagnosed as HIV-positive or as having AIDS, a neurodegenerative disease, a myelodysplastic syndrome or an ischaemic injury, selected from myocardial infarction, stroke, reperfusion injury, or a toxin-induced liver disease.	
XX	CC	
CC	The HIRP amino acid sequences were deduced from cDNA clones (AAT70837 and AAT70838) from a human liver library. IAP polypeptides can be expressed in host cells (in vitro or in vivo) and used in methods for treating diseases and disorders involving apoptosis, esp. in a human diagnosed as HIV-positive or as having AIDS, a neurodegenerative disease, a myelodysplastic syndrome or an ischaemic injury, selected from myocardial infarction, stroke, reperfusion injury, or a toxin-induced liver disease.	
XX	CC	
PS		
XX	CC	
CC	This sequence is the human HIRP-2 protein, which is a inhibitor of apoptosis protein (IAP), and can be used in the method of the invention. The method is for enhancing apoptosis in cells from a mammal with proliferative disease by treatment with a compound that inhibits biological activity of an IAP or NAPL polypeptide. The inhibitory compounds are used to treat proliferative diseases, especially cancers of ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney, liver, nasopharynx, thyroid, central nervous system, prostate, colon, rectum, cervix or endometrium, particularly to increase their sensitivity to chemotherapeutic agents. High levels of the IAP or NAPL proteins are detected in many cancers and are associated with poor prognosis, resistance to chemotherapeutic agents and mutations in p53 (it is suggested that wild-type p53 suppresses transcription of the IAP or NAPL genes). Transgenic animals are used for testing the effects of antisense oligonucleotides and for screening for the inhibitors.	
XX	CC	
CC	Sequence 618 AA:	
SQ		
XX	Query Match	95.9%; Score 283; DB 18; Length 618;
XX	Best Local Similarity	97.9%; Pred. No. 1. 6e-26;
XX	Matches	0; Mismatches 1; Indels 0; Gaps 0;
XX	RESULT	8
QY	1 PEQLASAGRYVVERNDVVKFCFGGLRCWCGSGDPPWHEAKWPRCE 48	
Db	287 peqlasagryvverndvkvfcfggllrcwesggdpwwehakwprce 334	
XX	Query Match	95.9%; Score 283; DB 19; Length 618;
XX	Best Local Similarity	97.9%; Pred. No. 1. 6e-26;
XX	Matches	0; Mismatches 1; Indels 0; Gaps 0;
XX	RESULT	8
ID	RAW13552 standard; Protein: 48 AA.	
XX	DE	
AC	AAW13552;	
XX	DE	
AAW13552;	22-JUL-1997 (first entry)	
XX	DE	
DE	Human c-IAP2 repeat 3.	
XX	DE	
XX	IAP; inhibitor; apoptosis; RING finger domain; restinosis; myocardial infarction; nephritis; HIV.	
XX	OS	
XX	OS	Homo sapiens.
XX	PN	W09706192-A1.

XX	PD	20-FEB-1997.	XX	PN
XX	PF	06-AUG-1996;	96NO-US12860.	XX
XX	PR	08-DEC-1995;	95US-056979.	XX
XX	PR	08-AUG-1995;	95US-0512946.	XX
XX	PA	(TULSA-) TULARIK INC.		
XX	PI	Goeddel DV, Rothe M;		
XX	DR	WPI; 1997-154209/14.		
XX	PT	Nucleic acids encoding cellular inhibitor of apoptosis proteins - useful for apoptosis regulation in cells to reduce or increase apoptosis and for pharmacological screening		
XX	PS	Claim 3; Page 25; 35pp; English.		
XX	CC	The human cellular inhibitor of apoptosis proteins (c-IAP1/2 - AT61590/761591) comprise a series of defined structural domain repeats and/or a RING finger domain; in particular, at least two of a first domain repeat (AAW13547 or AAW13548), a second domain repeat (AAW13549 or AAW1550), and a third domain repeat (AAW13551 or AAW13552) and/or a RING finger domain (AAW1553 or AAW13554), or a consensus sequences derived from these human genes.		
XX	CC	the nucleic acid is used for recombinant prodn of human cellular inhibitor of apoptosis protein which modulates apoptosis.		
XX	CC	the nucleic acids are useful in therapies where increased regulation of specific apoptosis is desired, e.g. in retinosis, inflammatory disease states, myocardial infarction, glomerular nephritis, transplant rejection and infectious diseases, e.g. HIV. They can also be used in conditions requiring a reduction in apoptosis.		
XX	SQ	Sequence 48 AA:		
RESULT	9	Query Match 95.6%; score 282; DB 18; Length 48; Best Local Similarity 93.8%; Pred. No. 1.4e-27; Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;		
AM19747	ID	AAW19747 standard; Protein; 604 AA.		
XX	AC	AAW19747;		
XX	DT	16-SEP-1997 (first entry)		
DE	DE	Human inhibitor of apoptosis protein homologue MIHC.		
XX	KW	Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MIHC; degenerative disease; infectious disease; autoimmune disease; cancer; therapy; diagnosis.		
XX	OS	Homo sapiens.		
XX	FH	Location/Qualifiers 29..97		
FT	Key	/label= BIR		
FT	Region	169..216		
FT	Region	/label= BIR 255..323		
FT	Region	/label= BIR 556..593		
FT	Region	/label= Ring_finger		
XX	XX	Query Match 95.6%; score 282; DB 18; Length 604; Best Local Similarity 93.8%; Pred. No. 2e-26; Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;		
XX	AC	AAW19582;		
XX	XX	02-SEP-1997 (first entry)		
XX	DE	Human apoptosis inhibitor HIAP-1.		
XX	KW	Apoptosis inhibitor; HIAP-1; HIV; AIDS; neurodegeneration; myelodysplastic syndrome; ischaemia; myocardial infarction; stroke; reperfusion injury; toxin-induced liver disease; gene therapy; diagnosis.		
XX	OS	Homo sapiens.		
XX	FH	Location/Qualifiers 29..96		
FT	Key	/label= BIR-1		
FT	Domain	169..235		
FT	Domain	/label= BIR-2		
FT	Domain	255..322		
FT	Domain	/label= BIR-3		
FT	Domain	546..591		
FT	Domain	/label= Ring_zinc_finger		

PN WO9706255-A2.
 XX
 PD 20-FEB-1997.
 XX
 PF 05-AUG-1996;
 XX 96WO-1B01022.
 PR 22-DEC-1995;
 XX 95US-0576956.
 PR 04-AUG-1995;
 XX 95US-0511485.
 PA (UYOT-) UNIV OTTAWA.
 XX
 PI Baird S, Korneluk RG, Liston P, Mackenzie AE;
 XX DR WI; 1997-154262/14.
 N-PSDB: AAT70837.
 XX
 PT Nucleic acid encoding an inhibitor of apoptosis polypeptide - used
 PT to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection
 PT of susceptibility to apoptotic disease.
 XX
 PS Claim 27: Page 72-74; 219PP; English.
 XX
 CC Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and
 CC M-HIAP-2 (AAW19581-86) are a new class of mammalian proteins that
 CC are inhibitors of apoptosis (IAP) and which are characterised by
 CC the presence of a ring zinc finger domain (see also AAW19587) and at
 CC least one BIR (baculovirus IAP repeat) domain (see also AAW19588).
 CC The IAP amino acid sequences were deduced from cDNA clones (AAT70837
 CC and AAT70838) from a human liver library. IAP polypeptides can be
 CC expressed in host cells (in vitro or *in vivo*) and used in methods
 CC for treating diseases and disorders involving apoptosis, esp. in a
 CC human diagnosed as HIV-positive or as having AIDS, a
 CC neurodegenerative disease, a myelodysplastic syndrome or an
 CC ischaemic injury, selected from myocardial infarction, stroke,
 CC reperfusion injury, or a toxin-induced liver disease.
 XX
 SQ Sequence 604 AA;

Query Match 95.6%; Score 282; DB 18; Length 604;
 Best Local Similarity 93.8%; Pred. No. 2e-26; Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 PT QY 1 PEQLASAGFYVGRNDVYKCCCGDGGLRCKWEGDDPPWVHAKWKFRC 48
 DB 273 peqlasagfyvqnsdadvkcccgglrcwesgddpwpwqhakwfpfrc 320

RESULT 11
 AAW13546
 ID AAW13546 standard; Protein; 604 AA.
 XX
 AC AAW13546;
 XX
 DT 22-JUL-1997 (first entry)

RESULT 11
 AAW13546
 ID AAW13546 standard; Protein; 604 AA.
 XX
 AC AAW13546;
 XX
 DE Human c-IAP2.
 XX Human c-IAP2.
 XX IAP; inhibitor; apoptosis; RING finger domain; restinosis;
 KW myocardial infarction; nephritis; HIV.
 XX Homo sapiens.
 XX WO9706182-A1.
 XX
 KW IAP; inhibitor; apoptosis; RING finger domain; restinosis;
 KW myocardial infarction; nephritis; HIV.
 XX Homo sapiens.
 XX
 PN WO9706182-A1.
 XX
 KW IAP; inhibitor; apoptosis; RING finger domain; restinosis;
 KW myocardial infarction; nephritis; HIV.
 XX Homo sapiens.
 XX
 PT 20-AUG-1998.
 XX 13-FEB-1998; 98WO-1B00781.
 PR 13-FEB-1997; 97US-0800929.
 XX
 PN (UYOT-) UNIV OTTAWA.
 XX
 PI Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
 PT Tsang B;
 XX
 PR WPI; 1998-467164/40.
 DR N-PSDB; AAV55039.
 XX
 PT Inducing apoptosis in proliferative mammalian cells with inhibitor
 PA of IAP or NAIP polypeptide - also methods for prognosis based on
 (TULA-) TULARIK INC.

Query Match 95.6%; Score 282; DB 18; Length 604;
 Best Local Similarity 93.8%; Pred. No. 2e-26; Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 PT QY 1 PEQLASAGFYVGRNDVYKCCCGDGGLRCKWEGDDPPWVHAKWKFRC 48
 DB 273 peqlasagfyvqnsdadvkcccgglrcwesgddpwpwqhakwfpfrc 320

RESULT 12
 AAW69295
 ID AAW69295 standard; Protein; 604 AA.
 XX
 AC AAW69295;
 XX
 DT 13-NOV-1998 (first entry)
 XX
 DE Human HIAP-1 protein.
 XX
 KW Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;
 KW proliferative disease; IAP; therapy; cancer; human; HIAP-1 protein.
 XX Homo sapiens.
 XX
 PN WO9335693-A2.
 XX
 PD 20-AUG-1998.
 XX 13-FEB-1998; 98WO-1B00781.
 PR 13-FEB-1997; 97US-0800929.
 XX
 PN (UYOT-) UNIV OTTAWA.
 XX
 PI Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
 PT Tsang B;
 XX
 PR WPI; 1998-467164/40.
 DR N-PSDB; AAV55039.
 XX
 PT Inducing apoptosis in proliferative mammalian cells with inhibitor
 PA of IAP or NAIP polypeptide - also methods for prognosis based on

XX Goeddel DV, Rothe M;
 XX DR WPI; 1997-154209/14.
 XX N-PSDB; AAT61591.
 XX
 PT Nucleic acids encoding cellular inhibitor of apoptosis proteins -
 PT useful for apoptosis regulation in cells to reduce or increase
 PT apoptosis and for pharmacological screening
 XX
 PS Disclosure; Page 21-23; 35pp; English.
 CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
 CC AAT1590/761591) comprise a series of defined structural domain
 CC repeats and/or a RING finger domain, in particular, at least two of
 CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
 CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552),
 CC and/or a RING finger domain (AAW1353 or AAW1354), or a consensus
 CC sequences derived from these human genes.
 CC The nucleic acid is used for recombinant prodn. of human cellular
 CC inhibitor of apoptosis protein which modulates apoptosis
 CC regulation. The nucleic acids are useful in therapies where
 CC increased cell-specific apoptosis is desired, e.g. in restinosis,
 CC inflammatory disease states, myocardial infarction, glomerular
 CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
 CC They can also be used in conditions requiring a reduction in
 XX apoptosis.
 XX
 SQ Sequence 604 AA;

XX Goeddel DV, Rothe M;
 XX DR WPI; 1997-154209/14.
 XX N-PSDB; AAT61591.
 XX
 PT Nucleic acids encoding cellular inhibitor of apoptosis proteins -
 PT useful for apoptosis regulation in cells to reduce or increase
 PT apoptosis and for pharmacological screening
 XX
 PS Disclosure; Page 21-23; 35pp; English.
 CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
 CC AAT1590/761591) comprise a series of defined structural domain
 CC repeats and/or a RING finger domain, in particular, at least two of
 CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
 CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552),
 CC and/or a RING finger domain (AAW1353 or AAW1354), or a consensus
 CC sequences derived from these human genes.
 CC The nucleic acid is used for recombinant prodn. of human cellular
 CC inhibitor of apoptosis protein which modulates apoptosis
 CC regulation. The nucleic acids are useful in therapies where
 CC increased cell-specific apoptosis is desired, e.g. in restinosis,
 CC inflammatory disease states, myocardial infarction, glomerular
 CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
 CC They can also be used in conditions requiring a reduction in
 XX apoptosis.

PT presence of IAP and NAIP, specifically applied to cancers involving
 PT p53 mutations
 XX disclosure; Fig 2; 147pp; English.

CC This sequence is the human HIAP-1 protein, which is an inhibitor of
 CC apoptosis protein (IAP), and can be used in the method of the invention.
 CC The method is for enhancing apoptosis in cells from a mammal with
 CC proliferative disease by treatment with a compound that inhibits
 CC biological activity of an IAP or NAIP polypeptide. The inhibitory
 CC compounds are used to treat proliferative diseases, especially cancers of
 CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,
 CC liver, nasopharynx, thyroid, central nervous system, prostate, colon,
 CC rectum, cervix or endometrium, particularly to increase their sensitivity
 CC to chemotherapeutic agents. High levels of the IAP or NAIP proteins are
 CC detected in many cancers and are associated with poor prognosis.
 CC resistance to chemotherapeutic agents and mutations in p53 (it is
 CC suggested that wild type p53 suppresses transcription of the IAP or NAIP
 CC genes). Transgenic animals are used for testing the effects of antisense
 CC oligonucleotides and for screening for the inhibitors.

XX Sequence 604 AA:

Query Match 95.6%; Score 282; DB 19; Length 604;
 Best Local Similarity 93.8%; Pred. No. 2e-26; Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 PEQLASAGFYVGRNDVKCFCGCGRLRWESEGDPPWHEAKWKFPRCE 48
 Db 273 peqlasagfyvgnsdavkcccdggircwesqddpwwqhawkfprce 320

RESULT 13

ID AAY52703 standard; Protein; 604 AA.

XX AAY52703;
 XX DT 26-JAN-2000 (first entry)

DE Human cellular inhibitor of apoptosis-2 protein.

KW Identification; genetic target; gene modulation; human;
 KW antisense oligonucleotide; phosphorothioate; target validation;
 KW nucleotide sequence-based technology; antisense drug discovery.

XX OS Homo sapiens.

XX PN WO9953101-A1.
 XX PD 21-OCT-1999.
 XX PR 13-APR-1999; 99WO-US08268.

XX PR 13-APR-1998; 98US-0081483.
 PR 28-APR-1998; 98US-0067638.

XX PA (ISIS-) ISIS PHARM INC.

XX PI Covert LM, Baker BF, McNeill J, Freier SM, Sasmor HM, Brooks DG;
 PI Obsni C, Wyatt JR, Borchers AH, Vickers TA;
 DR WPI; 1999-620445/53.
 XX N-PSDB; AAZ41005.

PT Identifying compounds which modulate expression of nucleic acids, used
 PT to provide compounds having defined physical, chemical or bioactive
 properties, e.g. antisense activity

XX Example 20; Page 197-202; 264pp; English.

XX A method has been developed of defining a set of compounds that modulate

CC the expression of a target nucleic acid (tNA) sequence via binding of
 CC the compounds with the tNA sequence. The method comprises generating a
 CC library of virtual compounds in silico according to defined criteria,
 CC and evaluating in silico the binding of the virtual compounds with the
 CC tNA according to defined criteria. Also described are: (1) a method of
 CC defining a set of oligonucleotides (ONS) that modulate the expression of
 CC a tNA sequence via binding of the ONS with the tNA sequence comprising
 CC generating a library of virtual compounds in silico according to defined
 CC criteria, and evaluating in silico the binding of the virtual ONS with
 CC the tNA according to defined criteria; and (2) a method of defining a
 CC set of compounds that modulate the expression of a tNA sequence via
 CC binding of the compounds with the tNA. The methods can be used for the
 CC generation and identification of synthetic compounds having defined
 CC physical, chemical or biocactive properties. Information gathered from
 CC assays of such compounds is used to identify nucleic acid sequences that
 CC are tractable to a variety of nucleotide sequence-based technologies,
 CC e.g. antisense drug discovery and target validation. AAY40852 to
 CC AAZ4220, and AAY52701 to AAY52703, represent sequences used in the
 CC exemplification of the present invention.

RESULT 14

ID AAY33997 standard; Protein; 604 AA.

XX AAY33997;
 XX DT 26-NOV-1999 (first entry)

DE Human cellular inhibitor of apoptosis-2 sequence.

KW Cellular Inhibitor of Apoptosis-2; antisense; diagnostic; therapeutic;
 KW c-IAP-2; prophylaxis; infection; inflammation; tumor formation.

XX OS Homo sapiens.

XX PN US5958771-A.

XX PD 28-SEP-1999.
 XX PR 03-DEC-1998; 98US-0205144.
 XX PR 03-DEC-1998; 98US-0205144.
 XX PR (ISIS-) ISIS PHARM INC.

XX PI Bennett CF, Covert LM, Ackermann EJ;
 DR WPI; 1999-561046/47.
 XX N-PSDB; AAZ22096.

PT Antisense compounds complementary to Cellular Inhibitor of Apoptosis-2
 PT useful for e.g. diagnostics, therapeutics, and as research reagents.

RS Example 13; columns 45-50; 33pp; English.

XX The invention provides antisense compounds of 8-30 nucleotides that
 CC inhibit the expression of human cellular inhibitor of Apoptosis-2
 CC (c-IAP-2). The antisense compounds may be used for diagnostics,
 CC therapeutics (for modulating the expression of c-IAP-2), prophylaxis
 CC (e.g. to prevent or delay infection, inflammation, or tumor formation),
 CC as research reagents (e.g. to distinguish between members of a biological

CC	pathway) and in kits. The present sequence represents the human cellular inhibitor of apoptosis-2.
XX	
Sequence	604 AA;
QY	1 PEQLASAGFVYVGANDDVKCFCGGLRCWSSGDPWAVHAKWPRCE 48
Db	273 Peqlasagfvyvgnsddvkcfcfdgqircwesgddpwwqhakwprce 320
RESULT	15
AAW13555	
TD	AAW13555 standard; Protein; 612 AA.
XX	
AC	AAW13555;
XX	
DT	22-JUL-1997 (first entry)
XX	
DE	Murine c-IAP.
XX	
KW	IAP; inhibitor; apoptosis; RING finger domain; restinosis; myocardial infarction; nephritis; HIV.
XX	
OS	Mus musculus.
XX	
PN	W09706182-A1.
XX	
PD	20-FEB-1997.
XX	
PF	96MO-US12860.
XX	
PR	08-DEC-1995; 95US-0509749.
PR	08-AUG-1995; 95US-0512946.
XX	
PA	(TULA-) TULARIK INC.
XX	
PT	Goeddel DV, Rothe M;
XX	
DR	WPI: 1997-15-209/14.
XX	
DR	N-PSDB; AAT61592.
PT	Nucleic acids encoding cellular inhibitor of apoptosis proteins useful for apoptosis regulation in cells to reduce or increase apoptosis and for pharmacological screening
XX	
PS	Disclosure: Page 28-29; 35pp; English.
XX	
CC	The human cellular inhibitor of apoptosis proteins (c-IAP1/2 - AAT61590/761511) comprise a series of defined structural domain repeats and/or a RING finger domain; in particular, at least two of a first domain repeat (AAW13547 or AAW13548), a second domain repeat (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552) and/or a RING finger domain (AAW13553 or AAW13554), or a consensus sequences derived from these human genes.
CC	The nucleic acid is used for recombinant prodn. of human cellular inhibitor of apoptosis protein which modulates apoptosis regulation. The nucleic acids are useful in therapies where increased cell-specific apoptosis is desired, e.g. in restinosis, inflammatory disease states, myocardial infarction, glomerular nephritis, transplant rejection and infectious diseases, e.g. HIV. They can also be used in conditions requiring a reduction in apoptosis.
CC	
XX	
SQ	Sequence 612 AA;
Query Match	95.6%; Score 282; DB 18; Length 612;
Best Local Similarity	93.8%; Pred. No. 2e-26;

